REMARKS

Claims 1-6, 13-19 and 29-42 are pending.

Related Cases

The present application is related to U.S. Pat. App. Ser. No. 10/667,685, entitled "Modified System and Method for Intraoperative Tension Assessment During Joint Arthroplasty." That application was rejected on 9/2/2008. A copy of the rejection will be made available to the Examiner if requested.

Claim Rejections – 35 USC §103

Applicants respectfully traverse the rejection of claims 1-6, 13-19 and 29-42 under 35 USC 103(a) as being unpatentable over Hershberger et al. (5,470,354) in view of Gerber (5,871,541).

Hershberger et al. discloses the use of curved rocker elements. For example:

- "The bearing elements 88 and 90 have convex curved rocker members 130, 132 on their lower surfaces. The rocker members rest on the upper surface 92 of the base member 84 and allow the bearing elements to "rock" or move angularly relative to the base member when forces or loads are applied at various parts of the upper surfaces of the bearing elements. The rocker members are preferably curved in a spherical shape as shown in FIGS. 9-11." (col. 7, lines 37-44)
- "An alternative rocker member for the bearing elements is shown in FIG. 12. In this embodiment, the rocker member 146 on the lower surface of bearing element 88' has an elongated ridge shape. It is also possible for the rocker member to have a cylindrical shape rather than a spherical shape with the axis of the cylinder positioned in either the medial-lateral or anterior-posterior directions of the knee joint." (col. 8, lines 7-14)

- "It is also possible as an alternate embodiment to have the rocker members 131 and 133 positioned on the base member 87 and have the lower surfaces of the bearing elements 89 and 91 be smooth and flat. Such an embodiment is shown in FIG. 31." (col. 8, lines 15-19)
- "As indicated, the sensor and appropriate instrumentation monitors and displays the force between the provisional components. The rocker members effectively convert multiple force vectors acting on the provisional component to a single point or line contact on the sensor." (col. 8, line 65 – col. 9, line 2)
- "The base plate 220 preferably has three locating pins 228 which mate with corresponding holes 230 in the bearing element. (A different number of pins can also be utilized.) The holes 230 are made larger than the pins so that the bearing element can move or "rock" around rocker member 232. The pins locate and constrain relative sliding motion, yet allow relative rocking motion between the base plate and bearing element. Rocker member 232 is provided on lower surface 234 of the bearing element and has a large radius convex spherical dome shape." (col. 10, lines 25-34)

Hershberger et al. discloses that these curved rocker elements act against flat surfaces. For example:

- "The base member has planar upper 92 and lower 94 surfaces and is provided in the general two-lobed shape shown. The surfaces are flat and smooth in order to provide a satisfactory surface for the force transducer to contact." (col. 6, lines 57-60)
- "It is also possible as an alternate embodiment to have the rocker members 131 and 133 positioned on the base member 87 and have the lower surfaces of the bearing elements 89 and 91 be smooth and flat. Such an embodiment is shown in FIG. 31." (col. 8, lines 15-19)

- "The preferred provisional patella component 85 is shown in FIGS. 23-26. The patella component 85 includes a base plate 220 and a bearing element 222. After the patella 46 is resected to remove a portion of its posterior surface, the base plate 220 is positioned on it. Anchoring post 224 on base plate 220 is positioned in hole 226 formed in the patella. The base plate provides a flat smooth surface for the sensor to contact." (col. 10, lines 17-24).
- It is also possible as an alternate embodiment to situate the rocker member 233 on the base plate 221 and have the lower surface of the bearing element 223 be flat and smooth. Such an embodiment is shown in FIG. 32.

Thus, the Hershberger et al. patent teaches use of curved rocker elements acting against flat smooth surfaces to effect the force sensing function. If one of ordinary skill in the art were to make the change suggested by the Office Action – modifying Hershberger et al. by making the flat surfaces curved as in Gerber – it raises the question of how rocker elements could be incorporated into the new design. Moreover, Gerber teaches that its design avoids rocking[1] while the Hershberger et al. patent relies on rocking for force sensing. "If the proposed modifications or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." MPEP 2143.01 VI. Accordingly, claims 1-6, 13-19 and 29-42 are patentable over Hershberger et al. in view of Gerber.

[1]"Owing to the lack of a rigid connection between the two tibial implants, moreover, there is no undesirable "rocking" of the tibial seating such as often occurs in the case of an implant constructed in one piece. Such rocking also loosens the tibial implant, with the consequence that the latter often must be replaced after a relatively short time." col. 3, lines 33-39; "Because the above-mentioned "rocking" is prevented, tensile loading of the interface due to raising of the tibial bearing element is avoided. Hence a distinct loosening tendency of the tibial bearing elements can be expected, even after prolonged use under heavy loads." col. 4, lines 33-38.

Conclusion

It is believed that the claims 1-6, 13-19 and 29-42 are in condition for allowance.

Applicants respectfully request reconsideration, further examination and that a timely Notice of Allowance be issued in this case.

Respectfully submitted,
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